CIP of US 1994-263572 19940623, Provisional US 1996-12764P 19960304, Div ex US 1996-746689 19961114, US 1998-72905 19980505; US 6159295 A Provisional US 1995-6852P 19951116, Provisional US 1995-6853P 19951116, Provisional US 1996-12764P 19960304, Provisional US 1996-12800P 19960304, Provisional US 1996-14005P 19960325, Provisional US 1996-22842P 19960731, Div ex US 1996-746697 19961114, US 1999-296911 19990422; US 6171645 B1 Provisional US 1995-6852P 19951116, Provisional US 1995-6853P 19951116, Provisional US 1996-12764P 19960304, Provisional US 1996-12800P 19960304, Provisional US 1996-14005P 19960325, Cont of US 1996-748926 19961114, US 1998-115854 19980715; EP 775669 B1 EP 1996-118275 19961114; DE 69612653 E DE 1996-612653 19961114, EP 1996-118275 19961114; US 6319852 B1 Provisional US 1995-6861P 19951116, Cont of US 1996-746688 19961114, US 2000-488185 20000120; US 6380105 B1 Div ex US 1996-746680 19961114, US 1999-324370 19990602

FDT US 6140252 A CIP of US 5504042, Div ex US 5847443; US 6171645 B1 Cont of US 5807607; DE 69612653 E Based on EP 775669; US 6380105 B1 Div ex US 5955140

PRAI US 1996-22842P 19960731; US 1995-6852P 19951116; US 1995-6853P 19951116; US 1995-6861P 19951116; US 1996-10511P 19960124; US 1996-12763P 19960304; US 1996-12764P 19960304; US 1996-12765P 19960304; US 1996-12799P 19960304; US 1996-12800P 19960304; US 1996-14005P 19960325; US 1996-14008P 19960325; US 1996-14009P 19960325; US 1996-14146P 19960325; US 1996-748925 19961114; US 1996-746680 19961114; US 1996-746697 19961114; US 1996-749186 19961114; US 1996-746679 19961114; US 1994-263572 19940623; US 1996-746689 19961114; US 1998-72905 19980505; US 1999-296911 19990422; US 1996-748926 19961114; US 1998-115854 19980715; US 1996-746688 19961114; US 2000-488185 20000120; US 1999-324370 19990602

AN 1997-283054 [26] WPIDS

CR 1996-041860 [05]; 1998-520099 [44]; 1999-059248 [05]; 2002-328094 [01]

AB EP 775669 A UPAB: 20020610

A metal-based nanoporous aerogel precursor sol comprises an aerogel precursor and a polyol solvent, the mole ratio of solvent molecules to metal atoms being at least 1:16. Also claimed are non-supercritical methods for forming nanoporous aerogels e.g. a thin film dielectric on a semiconductor substrate.

USE - In the manufacture of bulk and thin film aerogels. Bulk gel uses include molecular sieves, thermal insulation, catalyst supports, adsorbents, acoustic insulation and optiseparation membranes. Thin film gel uses include low dielectric constant films for semiconductors, miniaturised chemical sensors, thermal isolation structures e.g. for infrared detectors, thermal isolation layers and optical, protective, porous and antireflective coatings.

ADVANTAGE - Supercritical drying and the need of surface modificatio before drying are eliminated, the gelled film being either aged and dried without atmospheric controls or rapidly aged at elevated temperature and dried with only passive atmospheric controls e.g. limiting the volume of the aging chamber. Film thickness and aerogel density can be controlled easily and independently.

Dwg.0/19

L19 ANSWER 5 OF 5 WPIDS (C) 2002 THOMSON DERWENT FAMILY 1

AN 1996-041860 [05] WPIDS

CR 1997-283054 [26]; 1999-059248 [05]

DNN N1996-035104 DNC C1996-014195

TI Improving the properties of an uncapped porous dielectric layer - on a semiconductor device by controlled atmos. heat treatment which removes hydroxyl gps. from the pore surfaces.

DC L03 U11

IN CHO, C; GNADE, B E; SMITH, D M

PA (TEXI) TEXAS INSTR INC; (CHOC-I) CHO C; (GNAD-I) GNADE B E; (SMIT-I) SMIT D M